

WHAT IS CLAIMED IS:

1. A method of relieving competition between processing jobs sharing a production device, said method comprising the steps of:
 - a. from a first user's browser, accessing a destination service representing a production device;
 - b. retrieving production data of said first user by said destination service;
 - c. at said first user's browser, selecting production options from among a plurality of production options provided by said destination service for determining a first processing job for processing said first user's production data using said production device;
 - d. estimating the time duration required to process said first processing job using said production device with said selected production options;
 - e. if said production device is not currently processing a previous processing job of a previous user, then allowing said first processing job of said first user to be processed using said production device, subject under a first condition to interruption by a subsequent processing job of a subsequent user; otherwise
 - f. if said production device is currently processing a previous processing job of a previous user and if said previous processing job is subject under said first condition to said interruption, then under a second condition allowing said processing said first processing job of said first user to interrupt processing of said previous processing job of said previous user by said production device, such that processing of said previous processing job resumes after said processing of said first processing job is complete.
2. The method of claim 1 further comprising the step of offering said first user the option to process said first processing job following the completion of processing of said previous processing job.
3. The method of claim 1 further comprising the step of dynamically displaying job status including interrupt status at a browser of said previous user having said previous processing job interrupted by said first processing job of said first user.
4. The method of claim 1 wherein said first condition comprises requesting by said first user to allow interruption of said first processing job.

5. The method of claim 1 wherein said first condition comprises comparing said estimated time duration with a previously determined first threshold time duration.

6. The method of claim 1 wherein said first condition comprises requiring said first processing job to be interruptible if said estimated time duration exceeds a previously determined maximum threshold time duration.

7. The method of claim 1 wherein said step f. under said second condition further comprises the step of allowing a local processing job of a user local to said production device to interrupt processing of said previous processing job of said previous user by said production device, such that processing of said previous processing job resumes after said processing of said local processing job is complete, said local processing job being loaded and unloaded manually at said production device.

8. The method of claim 1 wherein said second condition comprises requesting by said first user to interrupt said previous processing job.

9. The method of claim 1 wherein said second condition comprises comparing said estimated time duration with a previously determined second threshold time duration.

10. The method of claim 1 wherein in said step f., if said first user interrupts said previous processing job, then said previous processing job is stored while processing said first processing job, such that said previous processing job is deferred but not canceled.

11. The method of claim 10 wherein said previous processing job is stored in a medium selected from the group consisting of a hard disk and an image store associated with said previous user's identity.

12. The method of claim 10 wherein if said previous processing job includes multiple output copies, then said previous processing job is allowed to complete the currently processing output copy of said multiple output copies before being interrupted by said first processing job.

13. The method of claim 10 further comprising the step of separating output copies of said first processing job from output copies of said previous processing job using an operation selected from the group consisting of delivering output copies of said first processing job and said previous processing job into separate output bins, delivering output copies into a common output bin, such that output copies of said first processing job are offset relative to output copies of said previous processing job, and delivering output copies into a common output bin, such that output copies of said first processing job are separated relative to output copies of said previous processing job by separator sheets.

14. The method of claim 10 wherein said subsequent processing job cannot interrupt said first processing job, if said first processing job is interrupting said previous processing job.

15. The method of claim 1 wherein said step f. further comprises the step of providing said first user an option of reserving processing at a deferred start time of said processing job using said production device in accordance with said selected production options, such that if said first user opts to reserve a start time, then setting a deferred start time, storing said processing job during a deferral period until said deferred start time occurs, and then deferred processing said processing job using said production device in accordance with said selected production options.

16. The method of claim 15 wherein said deferred processing job is stored in a medium selected from the group consisting of a hard disk and an image store associated with said first user's identity.

17. The method of claim 15 wherein said setting said deferred start time includes avoiding conflict with unavailable deferred start times of said production device.

18. The method of claim 15 further comprising the step of estimating the resources required to process said deferred processing job using said production device with said selected production options.

19. The method of claim 18 further comprising the step of reserving during said deferral period quantities of said respective resources required to process said deferred processing job.

20. The method of claim 19 wherein said reserved resources required to process said processing job are monitored during said deferral period.

21. The method of claim 20 wherein a warning message is displayed during said deferral period whenever any of said reserved resources is depleted to a quantity substantially equal to said reserved quantity of said reserved resource.

22. The method of claim 21 wherein during said deferral period said reserved resources are reported as if said reserved quantities of said reserved resources had already been consumed.

23. The method of claim 21 wherein said warning message is removed if said reserved resources are replenished above said reserved quantity.

24. A destination service representing a production device, said destination service operable to:

- download content into a first user's browser;
- retrieve said first user's production data;
- select under said first user's interactive control via said content from among production options for processing said first user's production data using said production device;
- estimate the time duration required to process said first user's production data using said production device in accordance with said selected production options;
- determine if said production device is currently processing a previous job of a previous user; and
- if said production device is not currently processing said previous job, monitor said processing and allow said first user's production data to be processed using said production device, subject under a first condition to interruption by a subsequent job of a subsequent user; otherwise
- if said production device is currently processing said previous job subject under said first condition to said interruption, monitor said processing and allow said processing of said first user's production data subject to a second condition to interrupt processing of said previous job by said production device; and
- direct a resumption of said processing of said interrupted job after said processing of said first user's production data is complete; otherwise
- offer said first user the option to process said first user's production data by said production device following the completion of processing of said previous job.

25. The destination service of claim 24 further operable to dynamically display status of said monitored processing including interrupt status via said content at a browser of said previous user having said interrupted job.

26. The destination service of claim 24 wherein said first condition comprises requesting by said first user to allow interruption of said first processing job.

27. The destination service of claim 24 wherein said first condition comprises comparing said estimated time duration with a previously determined first threshold time duration.

28. The destination service of claim 24 wherein said first condition comprises requiring said processing of said first user's production data to be interruptible if said estimated time duration exceeds a previously determined maximum threshold time duration.

29. The destination service of claim 24 wherein said second condition comprises requesting by said first user to interrupt said previous job.

30. The destination service of claim 24 wherein said second condition comprises comparing said estimated time duration with a previously determined second threshold time duration.

31. The destination service of claim 24 further operable to store said interrupted job until said resumption of processing.

32. The destination service of claim 31 wherein said interrupted job is stored in a medium selected from the group consisting of a hard disk and an image store associated with said previous user's identity.

33. The destination service of claim 24 further operable if said interrupted job includes multiple output copies to allow completion of the currently processing output copy of said multiple output copies before interrupting said interrupted job.

34. A method of controlling a plurality of processing jobs at a production device, said method comprising the steps of:

accepting a plurality of processing jobs competing for said production device;
determining the quantities of resources required for each accepted processing job;
comparing each said determination against at least one pre-established criterion to arrive at a priority level for each said processing job;

inserting an accepted processing job into a queue of accepted processing jobs according to its arrived at priority; and

interrupting an existing processing job that is currently using said production device, such that another processing job can use said production device, said another processing job having an arrived at priority different from the arrived at priority of said processing job being interrupted.

35. The method of claim 34 wherein said production device comprises a printing resource including at least one printer.

36. The method of claim 34 wherein said plurality of processing jobs comprise printing of image data.

37. The method of claim 34 wherein said resources include resources selected from the group consisting of processing time, paper, ink, and toner.

38. A system for relieving competition between processing jobs sharing a production device, said system comprising:

a user's browser; and

a destination service accessible from said user's browser and operable to download content into said user's browser, said destination service further representing a production device and operable to arrive at a priority level for each said processing job and to interrupt an existing processing job that is currently using said production device when said currently running processing job has a certain arrived at priority, such that another processing job can use said production device, said another processing job having an arrived at priority different from said processing job being interrupted.

39. The system of claim 38 further comprising means for web based imaging interconnected with said user's browser and said destination service.

40. The system of claim 38 wherein said destination service is remote from said user's browser.